

The Influence of Credit Quality, Strong Tie and Bridge Tie on the Firm Performance: Mediating Effect of Supply Chain Management

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Abstract—The foremost purpose of the present study is to analyze the impact of credit quality, strong tie and bridge tie on the performance of Islamic banks in Indonesia. The goal of the current study also shows the investigation of the mediating role of supply chain management among the links of credit quality, strong tie, bridge tie and performance of Islamic banks in Indonesia. The data has been obtained by using the questionnaire method and smart-PLS has been executed for analysis. The results revealed that credit quality and strong tie has positively linked with the performance of Islamic banks in Indonesia. The results also exposed that supply chain management positively mediating among the links of credit quality, strong tie, bridge tie and performance of Islamic banks in Indonesia. These findings provided suitable grounds to the new studies who want to investigate this area in future along with the policymakers who develop the policies related to the supply chain and firm performance.

Keywords; Credit quality, Strong-tie, Performance of Islamic banks, Supply chain management

1. Background

Enterprises of various levels are inserting a vital role in the development of the economy. The prevalence of small and medium enterprises usually known as the significant element for the economic infrastructure. Toward the growth of SMEs, the economies of various countries have ascertained significant rise while various measures with eminent performance also endorse significance toward the small and medium enterprises [15]. It is considered as the backbone of any country which inserts a crucial role in the infrastructure development where plenty of other roles are also contributed by the implementation of SMEs [3]. Rise of SMEs has endorsed advancements of technical and scientific for the improvement of the overall performance of the economy. Companies of large and small sizes face a variety of challenges in the global world while the consistency of challenges differentiates with innovative changes. The level of challenges faced by the SMEs is higher than predicted due to the innovation of industries in the rising world [13]. For the achievement of better performance in the global markets, SMEs faces the

challenges of obtaining various sources of funds for the consistency of operational works. Strong relationships between companies widely influence the performances in different channels where the financial and operational performances are dominant. For the facilitation of operational tasks, usually obtaining capital is the main problem for SMEs where a variety of measures are implemented for the accomplishment elements [27]. While reviewing previous studies, the eminence of working capital has gained importance because of the robust conditions and terms of mortgage providing institutions. SMEs in past usually look forward toward the banks for obtaining working capital under the strong requirements [34].

Most of the working capital providers in past look SMEs as a minor firm and avoid to aid financially due to the poor indication of working history; therefore, with the rising world, the position of SMEs have risen with robust attention towards the investors. Due to the high level of risks and non-productive institutions, SMEs were limited to run the operations openly as the other companies can do so [17]. The dominance of SMEs primarily unable to grow due to lack of capital; therefore, financial aids were obtained through the traditional means. Due to technological advancements, SMEs proved the quality of products and services over the markets which resulted in most profitable means for the other companies [24]. In today's world, SMEs are countered as the most earning gain organizations despite large organizations which enlighten the strategic abilities which were employed by the small level of firms. Variety of techniques were used by the SMEs which were dominant for the larger firms and have gained capabilities to be operated more effectively as compared to the larger companies [21]. The main achievement of small and medium enterprises consisted of producing products more effectively and profitably despite having financial constraints as compared to the other firms [30]. By providing collateral securities to the banks, smaller firms usually enhance their performance levels by having smaller time frames of returning loans to banks. The contracts were made by the

banks through using various prerequisites which neither impacted the performance of small and medium enterprise nor banks.

It is dominant that banks usually demand securities in exchange of loans; therefore, potential risks were determined by the SMEs and used minimal securities which were surety to the banks. Banks although not bear loss due to loans for small firms but the enhancement of smaller firms have gained the importance through which banks mostly relies on smaller firms rather than larger ones [25]. The dependence of morals in companies usually denotes the level of competence to be obtained by employing various strategies, while various hazards usually prevail in obtaining the maximum performance from various operational works. The quality of credits usually relies on the worthiness of companies; therefore, various risk indicators also prevail which usually influences the performance of the firm [36]. Most of the companies usually use various measures to enable the situation of repaying debts at an actual time frame. With the changing world, the prevalence of strong ties between companies and other organizations have risen which strengthened the relationships [14]. The prevalence of relationship for earning profits dominate in the current competitive world; therefore, strong ties with other organizations usually help to attain better advantages. Usually, many companies contain the element of a bridge which endorses the relationship with other companies where the role of bridge tie dominates enumerating the role between two organizations [9]. The eminence of information sharing wide supply chain management help companies to develop various measures for countering various challenges that prevail in competitive markets while striving for similar objectives. Likelihood of companies has enumerated the significance toward the economy where various developments are prevalent on the relation among numerous companies prevailing in markets [26].

2. Hypotheses development

The advancements in forms of doing business enable various ways to firms to operate independently which is constituted by the variety of factors. The interdependence of companies on similar aims usually endorses eminent measures which help companies to attain various objectives from the markets [6]. Various constraint prevails in markets which usually influences the various levels of performance, although, certain elements elected by the study are significant in endorsing influence over them the existence of wide literature enumerated numerous factors [33]. The prevalence of various domains results in the enhancement of the company's growth but the dominance of factors that affect the growth of companies usually elaborated by wide literature. The consistent constraints of financial needs dominate in the

literature which widely describes the pertinence of working capital which is required by SMEs to be operated effectively [28]. Using the exchange of information between companies can work for the betterment of small and medium enterprises while the eminent growth of SMEs in a short span has much diverted the attentions of investors toward the international market.

Many companies are notified by the ways of studies about the levels of credit qualities that significantly interprets the differences among larger and smaller firms [7]. Although, businesses of various qualities have significance toward the financial capital which is important context for the higher operations and making profits the eminence of traditional means have somehow eliminated some means that disrupts the limitations. The credit facility is important in the businesses whether high or low, the credit quality dominates with significance for the better performance of companies [8]. The strong requirements made by various financial companies put strong requirements along with various surety measures; therefore, literature discussed SMEs an important firm which is not indulged in high terms. Usually, small businesses require low capital facilities which ultimately results in higher profits to the companies and various intuitions [10]. Literature mentioned the element of credit quality which importance toward the performance of firms which usually is required in most of the companies to enhance the levels of performance.

H1: Credit quality significantly influences the firm's performance.

Usually, the gains from larger companies are denoted as higher rather than of small firms but the higher times requirement for long term investments usually devalue the money by the change of time. The stronger relationships positively enumerate the significance between them for the achievement of various objectives [35]. The studies of various authors mentioned the element of a strong tie an important aspect which is hidden between the companies. It could be treated as an eminent measure through which performance of companies could be enhanced, although, using the measure of tie inserts significance the need of strong relationships among similar aims could help companies to grow better than individually [39]. Using the technique of strong tie, various constraint in the competitive environments could be resolved quite easier while the performance and various needs could be achieved jointly. While striving in competitive markets, the importance of strong tie dominates in literature where the eminence of strong ties positively help companies to enhance the performance jointly rather than individually [11].

H2: Strong-tie significantly influences the firm's performance.

Study elected variables while reviewing the past studies that included a variety of factors influencing the growth of

companies; therefore, the existence of variables from the past literature are differentially influencing the performance of firms [5]. In some studies, the companies are jointly operating businesses while reminding the benefits of both companies; therefore, the existence of the third party between them handling relationship positively enumerates the growth of both companies [16]. The prevalence of bridge tie is eminently discussed in various infrastructure means while the existence of the bridge tie is pertinent to be mentioned in literature enumerating wide impacts over the performance. Literature mentioned the dimensions of bridge tie that describe the relationships among objectives of various businesses; therefore, using effective techniques in the establishment of positive trends in the growth of companies could enhance the sustainable levels [29]. The requirement of businesses requires various ties that could eminently perform in the competitive markets where many companies strive for earning profits and competitive advantage over the other companies.

H3: Bridge tie significantly influences the firm's performance.

The positivity of relationships among various credit providing institutions and SMEs are treated significantly in the literature where the process of information sharing wide supply chain management has made much easier [32] [22]. The facilities that are required for the performance of businesses require financial needs which are provided by various institutions; therefore, information sharing wide supply chain management help companies to attain various needs of the business. The information-sharing wide supply chain management has widely discussed the relationship between the quality of credits and firm performance these are interlinked with significant importance [4]. Companies operation by the adaptation of credit quality which usually influences the various terms and requirements for smaller firms have an enormous impact over the performance of firm which is ascertained through the capital working. The significance of information sharing wide supply chain management is widely elaborated in literature, while the element of information sharing wide supply chain management positively mediates among credit quality and firms performance [2].

H4: Information sharing wide supply chain management significantly and positively mediates between credit quality and firm's performance.

Relationship between various firms significantly enumerated through the strong ties which are usually helpful for the maintenance of a sustainable environment of business. Various methods of financing are used in literature that widely described the importance in the context of international businesses [19]. Therefore, using information sharing wide supply chain management, many matters become easier than studied in wide literature

where strong ties are positively linked with the firm's performance. Most of the elements of information sharing wide supply chain management are treated as a dominant element which positively results between the relationship of performance and strong ties [1]. Various studies enumerated the levels of a strong tie an important element which helps companies to build strong measures for sustainable and maintainable environments of businesses. Some studies mentioned information sharing wide supply chain management an important measure which positively results in the performance management and strong ties; therefore, information sharing wide supply chain management mediates among the relationship between strong ties and performance of firms [38].

H5: Information sharing wide supply chain management significantly and positively mediates between strong ties and firm's performance.

Studies enumerated the needs of money for the operational requirements of the business. Significantly, no business could strive further until the level of working capital is introduced; therefore, numerous mortgage providing industries have opened the era of credit facility to small firms [12]. The bridge plays an important role between companies and objectives whereas the role of the third party that exists between the relationship maintaining the role of building the relationship is widely discussed in studies [37]. Studies mentioned the need of bridge for every company which positively results for the benefits of companies through variant means which are eminently elaborated in the literature with a variety of impacts over the competitive environments and maintaining a sustainable environment [20]. Studies enumerated information sharing and the important element where information sharing wide supply chain management positively mediates among the relationship between bridge ties and performance of firms.

H6: Information sharing wide supply chain management significantly and positively mediates between bridge ties and firm's performance.

3. Methodology

The foremost purpose of the present study is to analyze the impact of credit quality, strong tie and bridge tie on the performance of Islamic banks in Indonesia. The goal of the current study also shows the investigation of the mediating role of supply chain management among the links of credit quality, strong tie, bridge tie and performance of Islamic banks in Indonesia. The data has been obtained by using the questionnaire method and the respondent has been selected by using simple random sampling. During the first personal visit, a total of 540 questionnaires has been forwarded to the respondents but out of them only 310 were returned that is approximately 57.41 percent.

In addition, smart-PLS has been executed for analysis because this tool is considered as the best tool in case of a complex model. The variable such as credit quality (CQ) that has seven items, strong tie (ST) that has five items, and bridge tie (BT) that has three items used as the independent variables. The variable such as firm performance (FP) that has four items used as dependent variable and supply chain management (information sharing) (SCMIS) has four items and used as mediating variable [18]. These variables along with links are shown in Figure 1.

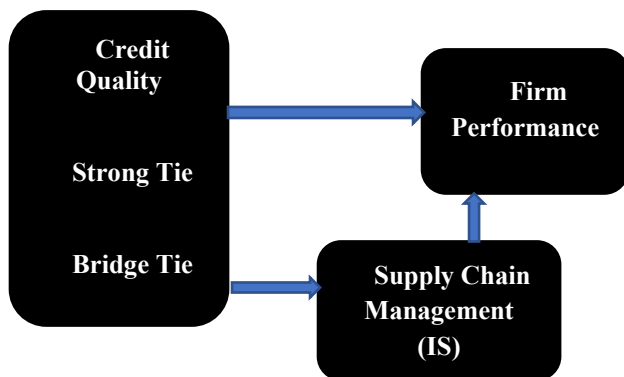


Figure 1. Theoretical model

4. Results

The findings exposed that the values of AVE and loadings are larger than 0.50 while the values of Alpha and CR are more than 0.70. These values exposed that valid convergent validity and high correlation among items. These figures are mentioned in Table 1.

Table 1. Convergent validity

Items	Loadings	Alpha	CR	AVE
BT1	0.649	0.746	0.811	0.591
BT2	0.846			
BT3	0.798			
CQ1	0.718	0.859	0.892	0.540
CQ2	0.731			
CQ3	0.696			
CQ4	0.705			
CQ5	0.751			
CQ6	0.756			
CQ7	0.785			
FP1	0.735	0.798	0.868	0.623
FP2	0.748			
FP3	0.841			
FP4	0.827			
SCMIS1	0.867	0.827	0.885	0.660
SCMIS2	0.866			
SCMIS3	0.794			
SCMIS4	0.713			

ST1	0.715	0.817	0.871	0.574
ST2	0.780			
ST3	0.782			
ST4	0.796			
ST5	0.713			

The findings exposed that the values of cross-loadings and Fornell Larcker show that links with variable itself are more than with other variables. These values exposed that valid discriminant validity and no high correlation among items. These figures are mentioned in Table 2 and Table 3.

Table 2. Fornell Larcker

	BT	CQ	FP	SCMIS	ST
BT	0.769				
CQ	0.134	0.735			
FP	0.249	0.619	0.789		
SCMIS	0.302	0.515	0.608	0.813	
ST	0.224	0.552	0.651	0.633	0.758

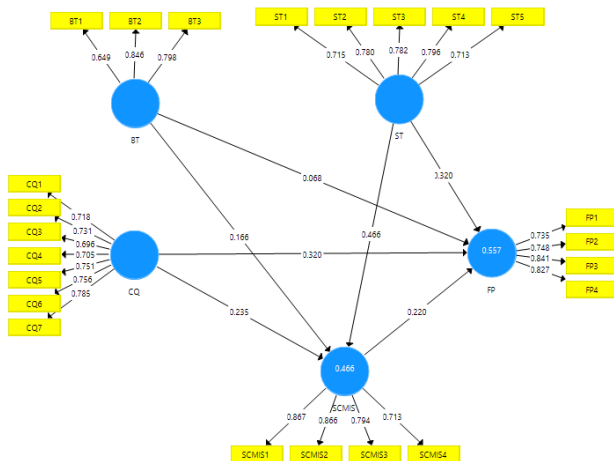
Table 3. Cross-loadings

	BT	CQ	FP	SCMIS	ST
BT1	0.649	0.166	0.220	0.189	0.132
BT2	0.846	0.028	0.206	0.265	0.219
BT3	0.798	0.129	0.143	0.235	0.156
CQ1	0.163	0.718	0.556	0.443	0.399
CQ2	0.029	0.731	0.375	0.291	0.371
CQ3	0.004	0.696	0.395	0.271	0.334
CQ4	0.001	0.705	0.410	0.375	0.388
CQ5	0.150	0.751	0.446	0.417	0.497
CQ6	0.094	0.756	0.495	0.374	0.442
CQ7	0.191	0.785	0.459	0.427	0.390
FP1	0.191	0.434	0.735	0.493	0.498
FP2	0.164	0.446	0.748	0.398	0.443
FP3	0.213	0.545	0.841	0.516	0.566
FP4	0.214	0.518	0.827	0.502	0.538
SCMIS1	0.244	0.459	0.578	0.867	0.614
SCMIS2	0.243	0.430	0.518	0.866	0.538
SCMIS3	0.300	0.362	0.407	0.794	0.449
SCMIS4	0.201	0.415	0.452	0.713	0.432
ST1	0.126	0.536	0.470	0.419	0.715
ST2	0.263	0.403	0.625	0.670	0.780
ST3	0.123	0.343	0.406	0.337	0.782
ST4	0.124	0.364	0.459	0.435	0.796
ST5	0.164	0.445	0.434	0.429	0.713

The findings exposed that the values of Heterotrait Monotrait (HTMT) ratio are lower than 0.90. These values exposed that valid discriminant validity and no high correlation among items. These figures are mentioned in Table 4.

Table 4. Heterotrait Monotrait ratio

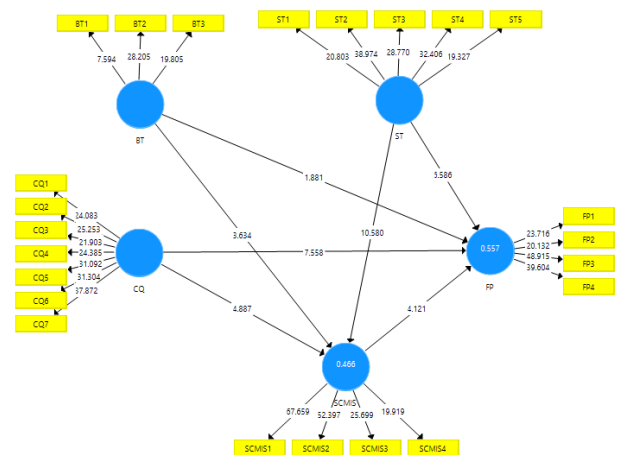
	BT	CQ	FP	SCMIS	ST
BT					
CQ	0.237				
FP	0.344	0.732			
SCMIS	0.414	0.596	0.737		
ST	0.286	0.651	0.777	0.724	

**Figure 2.** Measurement model assessment

The path analysis show that credit quality and strong-tie have positive association with firm performance and accept H1 and H2. However, bridge tie has insignificant impact on the firm performance and reject H3. In addition, supply chain management information sharing positively mediating among the links of credit quality, strong tie, bridge tie and firm performance and accept H4, H5 and H6. These figures are mentioned in Table 5.

Table 5. Path analysis

Relationships	Beta	S.D.	t-statistics	p-values
BT -> FP	0.068	0.036	1.881	0.063
BT -> SCMIS	0.166	0.046	3.634	0.000
CQ -> FP	0.320	0.042	7.558	0.000
CQ -> SCMIS	0.235	0.048	4.887	0.000
SCMIS -> FP	0.220	0.053	4.121	0.000
ST -> FP	0.320	0.049	6.586	0.000
ST -> SCMIS	0.466	0.044	10.580	0.000
BT -> SCMIS -> FP	0.037	0.015	2.496	0.014
CQ -> SCMIS -> FP	0.052	0.017	3.064	0.003
ST -> SCMIS -> FP	0.103	0.027	3.780	0.000

**Figure 3.** Structural model assessment

5. Discussion and conclusion

The results revealed that credit quality and strong tie has positively linked with the performance of Islamic banks in Indonesia. These findings are matched with the findings of Ali, Gongbing [3] who also exposed that credit quality has positively associated with the firm performance. In addition, a study by Moretto, Grassi [23] examined that firm performance depends on the credit quality of the firm and these outcomes are same as the results of ongoing study. The results also exposed that supply chain management positively mediating among the links of credit quality, strong tie, bridge tie and performance of Islamic banks in Indonesia. These findings are similar to the outcomes of Pradhan, Swain [31] who also exposed that supply chain positive associated with firm performance. These findings provided suitable grounds to the new studies who want to investigate this area in future along with the policymakers who develop the policies related to the supply chain and firm performance. Thus, the current study concluded that the Islamic banks have managed credit quality along with supply chain practices that is the reason for high bank performance in the country. This study suggested that the upcoming studies should expand their studies by adding more business in the analysis. In addition, the present study has recommended that the future studies should add moderator in the model that is ignored by the current study.

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